Application No.: 10/516,493

Amdt. dated November 09, 2006

Reply to Office Action dated August 11, 2006

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A coating composition for production of insulating film, comprising:

a) an organic polysiloxane precursor having a weight-average molecular weight ranging from 500 to 30,000, and a molar ratio of hydroxy groups approximately 80% or more of the total condensable functional groups;

b) an organic solvent; and

c) water;

wherein said organic polysiloxane precursor comprises one or more silane compounds selected from the group consisting of silane compounds represented by Chemical Formulae 1 to 3 below, dimers, or oligomers prepared therefrom as a hydrolyzed and condensed repeating unit:

[Chemical Formula 1]

$$SiR_{p}^{1}R_{4-p}^{2}$$

where

 R^1 is hydrogen, an aryl, a vinyl, an allyl, or a linear or branched C_1 to C_4 alkyl substituted by fluorine or unsubstituted,

R² is a linear or branched C₁ to C₄ alkoxy, and

p is an integer of 1 or 2,

[Chemical Formula 2]

$$R_q^3 R_{3-q}^4 Si - M - SiR_r^6 R_{3-r}^6$$

where

each of R^3 and R^5 is independently hydrogen, fluorine, an aryl, a vinyl, an allyl, or a linear or branched C_1 to C_4 alkyl substituted by fluorine or unsubstituted,

each of R⁴ and R⁶ is independently a linear or branched C₁ to C₄ alkoxy,

M is a C₁ to C₆ alkylene or phenylene, and

each of q and r is an integer of 0 to 2, and

[Chemical Formula 3]

$$R_{n}^{7} \square_{SiO}^{3} R_{2m-n}^{8}$$

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where

 R^7 is hydrogen, fluorine, an aryl, a vinyl, an allyl, or a linear or branched C_1 to C_4 alkyl substituted by fluorine or unsubstituted,

 R^8 is hydrogen, a hydroxy, or a linear or branched C_1 to C_4 alkoxy or $-(CH_2)a$ -SiR $^9R^{10}$ (where a is 2 or 3),

 R^9 is fluorine, an aryl, a vinyl, an allyl, or a linear or branched C_1 to C_4 alkyl substituted by fluorine or unsubstituted,

 R^{10} is a linear or branched C_1 to C_4 alkoxy; and each of m and n is an integer of 3 to 7.

- 2. (Original) The coating composition of claim 1, comprising:
- a) 100 parts by weight of said organic polysiloxane precursor;
- b) 200 to 2000 parts by weight of said organic solvent; and
- c) 5 to 60 parts by weight of water.
- 3. (Previously Cancelled).
- 4. (Original) The coating composition of claim 1, said organic polysiloxane precursor having a molar ratio of unhydrolyzable functional groups to silicon atoms (functional group/Si) ranging from 0.35 to 0.75.
- 5. (Original) The coating composition of claim 1, said organic solvent being a non-alcoholic ether based solvent or a non-alcoholic ester based solvent.
 - 6. (Cancelled)
 - 7. (Original) The coating composition of claim 1, further comprising:
 - d) a pore generating material.
 - 8. (Original) The coating composition of claim 7, comprising:
 - d) 5 to 100 parts by weight of said pore generating material for 100 parts by weight of said organic polysiloxane precursor.

 - 9. (Original) The coating composition of claim 7, said pore generating material being one of

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decomposable in the temperature range of 200 to 450°C.

materials selected from a group consisting of linear organic molecules, linear organic polymers, cross-linked organic molecules, cross-linked organic polymers, hyper-branched organic molecules, hyper-branched polymers, dendrimer organic molecules, and dendrimer organic polymers that are thermally

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

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